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CHARLES B. GORDON
THOMAS P. SCHILLER
DAVID B. DEIOMA
JOSEPH J. CORSO
HOWARD G. SHIMOLA
JEFFREY J. SOPKO
JOHN P. MURTAUGH
JAMES M. MOORE
MICHAEL W. GARVEY
RICHARD A. SHARPE
RONALD M. KACHMARIK
PAUL A. SERBINOWSKI
BRIAN G. BEMBENICK
AARON A. FISHMAN

PEARNE & GORDON LLP

ATTORNEYS AT LAW
1801 EAST 9th STREET
SUITE 1200
CLEVELAND, OHIO 44114-3108
TEL: +1 (216) 579-1700 FAX: +1 (216) 579-6073
EMAIL: ip@pearnegordon.com

STEPHEN S. WENTSLER
ROBERT F. BODI
SUZANNE B. GAGNON
UNA L. LAURICIA
STEVEN J. SOLOMON
GREGORY D. FERNENGEL
BRYAN M. GALLO
BRAD C. SPENCER
OF COUNSEL
LOWELL L. HEINKE
THADDEUS A. ZALENSKI
PATENT AGENT
TOMOKO ISHIHARA
PATENT, TRADEMARK, COPYRIGHT AND RELATED INTELLECTUAL PROPERTY LAW

OIPE MAP 100
AUG 31 2006
PATENT & TRADEMARK OFFICE

August 29, 2006

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Certificate of Correction
SEP 05 2006

Re: U.S. Patent No. 7.046.960
Issued: May 16, 2006
Inventor: Makoto Takemoto et al.
Our Docket No.: 34109

Sir:

A Certificate of Correction under 35 U.S.C. 254 is hereby requested to correct Patent Office printing errors in the above-identified patent. Enclosed herewith is a proposed Certificate of Correction (Form No. PTO-1050) and documentation in support of the proposed corrections for consideration.

It is requested that the Certificate of Correction be completed and mailed at an early date to the undersigned attorney of record. The proposed corrections are obvious ones and do not in any way change the sense of the application.

We understand that a check is not required since the errors were on the part of the Patent and Trademark Office in printing the patent.

Very truly yours,

Jeffrey J. Sopko, Reg. No. 27676

JJS:ljw

Enclosures

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date indicated below.

Jeffrey J. Sopko
Name of Attorney for Applicant(s)

8/28/06
Date

Signature of Attorney

SEP 05 2006

PTO/SB/44 (07-03)
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
(Also Form PTO-1050)

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,046,960 PAGE 1 OF 1
DATED : May 16, 2006
INVENTOR(S) : Takemoto et al.

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

In Column 2, line 53, please delete "are lay" and insert - -a relay- -

In Column 14, line 48, please delete "chase" and insert - -phase- -

In Column 14, line 58, please delete "chase" and insert - -phase- -.

MAILING ADDRESS OF SENDER: Jeffrey J. Sopko
Pearne & Gordon LLP
1801 East 9th Street
Suite 1200
Cleveland, Ohio 44114-3108

PATENT NO. 7,046,960 B2

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the signal transmission qualities could not be completely solved.

Summary of the Invention

The present invention has been made to solve the above-explained problems, and therefore, has an object to provide such a relay apparatus capable of firmly removing a loop wave contained in a received input signal by correcting both an amplitude error and a phase error, which are contained in a duplicated loop signal, and also capable of maintaining transmission qualities under better condition.

To solve the above-described problems, according to a first aspect of the present invention, a relay apparatus equipped with a function capable of canceling loop operation of a signal between a reception antenna and a transmission antenna, comprising: subtracting unit for subtracting a duplicated loop signal from a received input signal which is produced by containing loop waves in a desirable wave received via the reception antenna; relay broadcasting unit for inputting the output signal of the subtracting unit and for outputting a broadcasting signal; signal processing unit for producing the duplicated loop signal based upon any one of the input signal of said relay broadcasting unit and the broadcasting signal outputted from the relay broadcasting unit; and variable attenuating unit for varying a signal level of the duplicated

an error rate measuring unit for measuring an error rate of said broadcasting signal which is demodulated by said receiving/demodulating unit,

wherein said variable attenuating unit adjusts the signal level of said duplicated loop signal so that an amplitude error of said duplicated loop signal is corrected, and

wherein said variable attenuating unit adjusts the signal level of said duplicated loop signal in such a manner that the error rate of said broadcasting signal measured by said error rate measuring unit becomes lower than, or equal to a predetermined value.

Claim 7 (currently amended): A ~~The~~ relay apparatus ~~as claimed in claim 2, further~~ equipped with a function capable of canceling loop operation of a signal between a reception antenna and a transmission antenna, comprising:

a subtracting unit for subtracting a duplicated loop signal from a received input signal which is produced by containing loop waves in a desirable wave received via said reception antenna;

a relay broadcasting unit for inputting the output signal of said subtracting unit and for outputting a broadcasting signal;

a signal processing unit for producing said duplicated loop signal based upon any one of the input signal of said

relay broadcasting unit and the broadcasting signal outputted from said relay broadcasting unit;

a variable phase shifting unit for varying a phase of said duplicated loop signal which is produced by said signal processing unit;

a receiving/demodulating unit for receiving said broadcasting signal outputted from said relay broadcasting unit and for demodulating said received broadcasting signal; and

an error rate measuring unit for measuring an error rate of said broadcasting signal which is demodulated by said receiving/demodulating unit,

wherein a said variable phase shifting unit adjusts the phase of said duplicated loop signal so that a phase error of said duplicated loop signal is corrected, and

wherein said variable phase shifting unit adjusts the phase of said duplicated loop signal in such a manner that the error rate of said broadcasting signal measured by said error rate measuring unit becomes lower than, or equal to a predetermined value.